

What is claimed is:

- 1 1. A method, comprising:
2 based on policy rules, creating an access control
3 list adapted to configure a network device; and
4 using the access control list to generate access
5 filters.
1 2. The method of claim 1 further comprising expanding
2 the policy rules into value groups that represent
3 conditions associated with the policy rules.
1 3. The method of claim 2 further comprising excluding
2 conditions that would otherwise be implied by the
3 rules.
4 4. The method of claim 3 further comprising resolving
5 inconsistent conditions that result from expanding
6 the policy rules and excluding the policy rule
7 conditions.
8 5. The method of claim 1 further comprising creating at
9 least one array of included or excluded conditions
10 from the policy rules.
11 6. The method of claim 5 wherein generating the access
12 filters further comprises:
13 adding filters adapted to control access of a device
14 to another component in the network.
15 7. The method of claim 6 further comprising generating
16 deny filters by combining the at least one array of
17 excluded conditions and the at least one array of
18 included conditions.
19 8. The method of claim 6 further comprising generating
20 permit filters by combining the at least one of the

arrays of the included conditions with the remaining
arrays of included conditions.

9. A computer network, comprising:

a first device adapted to disseminate policy rules
in the network; and

a second device adapted to receive the policy rules
disseminated on the network by the first device and
adapted to:

based on policy rules, create an access
control list adapted to configure the at
least one device from the filters;

and to use the access control list to
generate access filters from the
translated policies.

10. The system of claim 9 wherein the second device
further comprises a permit filter.

11. The system of claim 10 further comprising a
plurality of data-storage devices adapted to permit
access to the second device.

12. The system of claim 9 wherein the second device
further comprises a deny filter.

13. The system of claim 12 further comprising a
plurality of data-storage devices adapted to deny
access to the second device.

14. An article comprising a computer-readable medium
which stores computer executable instructions for
managing policy rules on a network, the instructions
causing a computer to:

5 based on policy rules, create an access control
6 list adapted to configure the devices from the simplified
7 rules; and

8 use the access control list to generate access
9 filters.

1 15. The article of claim 14 further comprising
2 instructions to expand the policy rules into value
3 groups, wherein value groups represent conditions
4 associated with the policy rules.

1 16. The article of claim 15 wherein the instructions to
2 translate the policy rules further includes
3 instructions to exclude conditions that would
4 otherwise be implied by the policy rules.

1 17. The article of claim 16 wherein the instructions to
2 translate the policy rules further includes
3 instructions to resolve inconsistent conditions that
4 result from expanding the policy rules and excluding
5 the policy rule conditions.

1 18. A network device, comprising:

2 a configurable management process located on the device

3 having instructions to:

4 receive the policy rules in a network device;

5 translate the policy rules to a set of
6 simplified rules;

7 create an access control list adapted to
8 configure the devices from the simplified rules; and

9 use the access control list to generate access
10 filters.

1 19. The device of claim 18 further comprising a
2 connection to an external network.

1 20. The device of claim 19 wherein the external network
2 is a local area network.

1 21. The device of claim 19 wherein the external network
2 is the Internet.

1 22. A method of managing access by a device on a network
2 to another component on the network, comprising:
3 providing policy rules that determine the access of
4 the device to the component.

1 23. The method of claim 22 wherein the policy rules
2 comprise:
3 an access control list including the conditions that
4 allow the device to access the component; and
5 filters for implementing the access.

1 24. The method of claim 22 wherein the access control
2 list comprises include and exclude arrays that are combined to
3 generate the filters.